

24(c) CHECKLIST

STATE: <u>Oregon</u>	SLN No <u>OR-90-0008</u>
DATE REGISTERED: <u>4-3-90</u>	90-DAY DATE: <u>7-3-90</u>
SPECIFIC SPECIAL LOCAL NEED: _____	SITE: _____
_____	PEST/PROBLEM: _____

- =====
1. Is the State certified to issue this type of registration? _____
 2. Was the EPA Application/Notification Form submitted? _____
 3. Was all the required information included on the form? _____
 4. Was a confidential formula submitted (for new products)? _____
 5. Is this registration for a "CHANGED USE PATTERN"? _____
 6. Has an FR document been prepared for this "CHANGED USE PATTERN"? _____

Federal Register publication date: _____

7. Tolerances required? _____ Established? _____ Citation: _____
8. Full labeling being used? _____ Supplemental directions? _____
9. Does label state "FOR DISTRIBUTION AND USE ONLY WITHIN (State)?" _____
10. Does full label comply with 40 CFR 162.10, as follows:
 - a. Product name, brand or trademark? _____
 - b. Name and address of registrant? _____
 - c. Net contents? _____
 - d. Product registration number? _____
 - e. Producing establishment number? _____
 - f. Ingredient statement? _____
 - g. Precautionary labeling? _____
 - h. Directions for use for special local need? _____
 - i. Use classification? _____

Was proper format followed? _____

11. Is supplemental directions for use labeling satisfactory? _____
12. Was supplemental labeling compared with EPA-registered label? _____

COMMENTS: _____

CODING FORM FOR SPECIAL LOCAL NEED [24(c)] REGISTRATIONS

4. State Issue Date

5. Date received by EPA

6. Date received by PM

7. Chemical name _____

8. Chemical code _____

9. Use

10. Reviews requested:

Response
Date

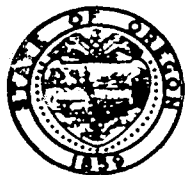
Efficacy

1. Status

4. FINAL ACTION: Response code

Response date

1	1	1	1	1	1
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Oregon

John A. Kitzhaber, M.D., Governor

Department of Agriculture

Mailing address:
635 Capitol Street NE
Salem, OR 97310-0110

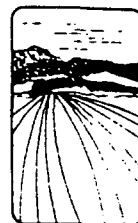
Location address:
3420 Cherry Ave NE

January 20, 1998

Received

Pesticides Unit

Lyn Frandsen
US Environmental Protection Agency
Region 10 AT-083
1200 Sixth Ave.
SEATTLE, WA 98101



ALFALFA SLN LABELS

Mary Corp, of our Hermiston office, asked that I send you, and Ben Simko, a copy of all Special Local Need (SLN) labels issued by Oregon for use of pesticide products on alfalfa. Enclosed are labels of the following active SLN products:

Bayer Sencor 4 (EPA Reg. No. 3125-314), SLN OR-850019 - 25

Bayer Sencor DF (EPA Reg. No. 3125-325) SLN OR-850020 25

FMC Capture 2EC (EPA Reg. No. 279-3069) SLN OR-900008 13

DowElanco Trellan TR-10 (EPA Reg. No. 62719-131) SLN OR-900019 23

Valent Dibrom 8 (EPA Reg. No. 59639-15) SLN OR-900020 23

Ciba Dual 8E (EPA Reg. No. 100-597) SLN OR-910007 23

Dupont Sinbar (EPA Reg. No. 352-317) SLN OR-920003 25

Cyanamid Prowl 3.3 EC (EPA Reg. No. 241-337) SLN OR-930001 23

Zeneca mixture of Gramoxone Extra (EPA Reg. No. 10182-280) SLN OR-930019 and Diquat (EPA Reg. No. 10182-353) SLN OR-930025 - EPA request two SLN numbers for this mixture 25

Uniroyal Comite (EPA Reg. No. 400-104) SLN OR-940012 13

DowElanco Sonalan HFP (EPA Reg. No. 62719-188) SLN OR-940037 23

Zeneca Warrior (EPA Reg. No. 10182-96) SLN OR-950012 13

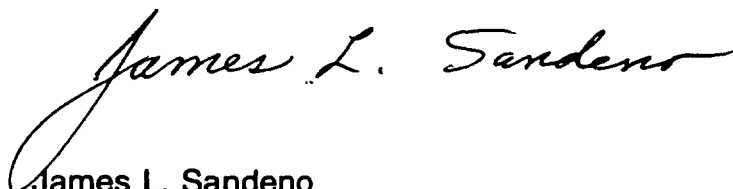
Zeneca Fusilade DX (EPA Reg. No. 10182-367) SLN OR-950014 23

Ciba Supracide 25WP (EPA Reg. No. 100-754) SLN OR-960030 T-4

Gowan Savey (EPA Reg. No. 10163-208) SLN OR-970013 13

All of the above were registered with this Department in 1997. I do not know how many will be registered with the Department in 1998 and changes in-registrant names may also result in different registrant names in 1998.

If you have any questions please call our office.



James L. Sandeno
Registration/Certification Supervisor
Pesticides Division
(503) 986-4647
FAX: (503) 986-4735
Hearing Impaired: (503) 986-4762
jsandeno@oda.state.or.us

cc: M. Corp - ODA

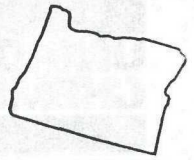
8/5/94

#33

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

EPA SLN NO.
OR-900008FOR DISTRIBUTION
AND USE ONLY IN
OREGON

Capture. 2EC

Insecticide-Miticide

For Agricultural or Commercial Use Only

EPA REG. No. 279-3069

EMERGENCY CALLS: 800-331-3148

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN
A MANNER INCONSISTENT WITH ITS LABELING.**

CROP	PEST	RATE OF APPLICATION
Alfalfa Seed	Lygus Bugs Aphids Weevil Spider Mites	3.9 to 6.4 ounces per acre

DIRECTIONS FOR USE:

To control Lygus Bugs, Aphids, Weevil and Spider Mites, apply Capture 2EC at the rate of 3.9 to 6.4 ounces (0.06 to 0.1 lb. active) per acre. Apply in a minimum of 5 gallons of water per acre by air or in a minimum of 20 gallons of water by ground.

SPECIAL EQUIPMENT

Capture 2EC should be mixed and loaded using systems that comply with accepted standards that identify a closed mixing-loading system. That system should be designed and operated in such a manner to minimize human exposure to the formulated product or the mixed spray solution of Capture. Follow state directions for closed systems. For more details, contact your State Extension Service.

Make aerial or ground applications when the wind velocity favors on target product disposition (approximately 3 to 10 MPH). Do not apply when wind velocity exceeds 15 MPH.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. Boom length must not exceed 75% of wing span or rotor diameter.

Do not apply by ground equipment within 25 feet, or by air within 75 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not apply more than 6.4 ounces (0.1 lb. active) per acre per treatment. Do not make more than 3 applications in a crop year. Maintain a minimum of 21 days between Capture 2EC treatments.

(Continued next page)

Code 777-394

OR-900008

SUPPLEMENTAL LABELING
FOR DISTRIBUTION AND USE ONLY WITHIN OREGON

**UNIROYAL
CHEMICAL**

COMITE®
AGRICULTURAL MITICIDE
EPA REG. NO. 400-104

COMPOSITION

Active Ingredients: (% by weight)	
Propargite 2-(p-tert-butylphenoxy) cyclohexyl 2-propynyl sulfite	73.0%
Inert Ingredients	27.0%
Total:	100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner
inconsistent with its labeling.
Do not apply this product through any type of irrigation system.

ALFALFA (Grown for Seed Purposes)

A liquid emulsifiable concentrate for preparing sprays to control the two-spotted spider mite complex.

Ground Application

Use 1½ to 2 pints of COMITE per acre in 25 to 40 gallons of water per acre.

Aerial Application

Use 1½ to 2 pints of COMITE in a minimum of 10 gallons of water per acre.

USE RESTRICTIONS:

Use of this product according to this labeling is deemed a non-food use by the Oregon Department of Agriculture, and as such is not for use on fields producing alfalfa for livestock feed. **Do not** feed or graze alfalfa following COMITE application. **Do not** cut treated alfalfa for hay or for forage. **Do not** use harvested seed for sprouting. No portion of the treated field, including seed, seed screenings, hay, forage or stubble may be used for human or animal consumption.

Producers of alfalfa seed who use this product, or cause the product to be used on a field they operate, are required to inform, in writing, conditioners receiving seed produced on field treated with COMITE. A copy of the labeling must be given by the producer to the conditioner. Processed seed must be labeled "**Not for human or animal consumption**". All alfalfa seed screenings, hay, forage and other crop by-products produced from treated fields must be disposed of in such a way that they cannot be distributed or used for food or feed.

COMITE is not hazardous to bees when used alone. However, bee hazards may be encountered when combined with Dylox. Observe State Department of Agriculture regulations on the use of insecticides for seed alfalfa.

**All applicable directions, restrictions, and precautions on the EPA-registered label are to be followed.
This label must be in the possession of the user at the time of application.**

001

TO: Geo. Larocca (PM-13) - FR: B. Purnell - 3780 - #716

INSECTICIDE-RODENTICIDE BRANCH RM. # 204

FUNGICIDE-HERBICIDE BRANCH _____

ANTIMICROBIAL PROGRAM BRANCH _____

DOCUMENT CENTER _____

EVELYN ALSTON _____

PAM. ROOM _____

MESSAGE:

Amendment of (24c) ^{OR} ~~CA~~-900008. Revised
Label enclosed, pls. review.

Thanks!

B. Purnell

3780 - 716

October 16, 1991

Mr. Donald R. Stubbs, Acting Chief
Document Processing Desk (SLN)
Office of Pesticide Programs-Registration Div. (H7505C)
U.S. Environmental Protection Agency
401 M Street (SW)
WASHINGTON DC 20460

REFERENCE: EPA SLN OR-900008

The following Oregon Special Local Need registration, issued under Section 24(c) has been amended. A copy of the revised label is enclosed for your file. The originally issued SLN number will remain in effect.

Registrant: FMC Corporation
Product: Capture 2EC Insecticide/Miticide

Please correct your files to reflect this change.

Thank you.

Robert A. Mitchell

Robert A. Mitchell
Agricultural Chemicals Specialist
Plant Division
(503) 378-3776

PL/FOR/X6/iy
Enclosure

cc: PLIRS
Oregon State University
OSDA Registration File
SLN File
Jeff Klundt
Ben Simko

BARBARA ROBERTS
Governor



635 Capitol Street NE
Salem, OR 97310-0110



RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

EPA SLN NO.
OR-900008FOR DISTRIBUTION
AND USE ONLY IN
OREGON**Capture® 2EC
Insecticide-Miticide**

For Agricultural or Commercial Use Only

EPA REG. No. 279-3069

EMERGENCY CALLS: 800-331-3148

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN
A MANNER INCONSISTENT WITH ITS LABELING.

CROP	PEST	RATE OF APPLICATION
Alfalfa Seed	Lygus Bugs Aphids Weevil Spider Mites	3.9 to 6.4 ounces per acre

DIRECTIONS FOR USE:

To control Lygus Bugs, Aphids, Weevil and Spider Mites, apply Capture 2EC at the rate of 3.9 to 6.4 ounces (0.06 to 0.1 lb. a.i.) per acre. Apply in a minimum of 5 gallons of water per acre by air or in a minimum of 20 gallons of water by ground.

SPECIAL EQUIPMENT

Capture 2EC should be mixed and loaded using systems that comply with accepted standards that identify a closed mixing-loading system. That system should be designed and operated in such a manner to minimize human exposure to the formulated product or the mixed spray solution of Capture. Follow state directions for closed systems. For more details, contact your State Extension Service.

RESTRICTIONS:

For use only on fields of Alfalfa grown for seed operated by members of the Oregon Alfalfa Seed Growers Association, Gardena Alfalfa Seed Growers Association, Inc., or Josephine Growers Association, and located in Malheur, Umatilla, Morrow, Jackson or Josephine Counties of Oregon.

For use only on fields in the production of Alfalfa Seed. Not for use on fields producing Alfalfa for livestock feed. No portion of the treated field, including seed, seed screenings, hay, forage or stubble, may be used for human or animal feed.

Producers of Alfalfa Seed who use Capture 2EC, or cause the product to be used on fields they operate, are required to inform, in writing, conditioners receiving seed produced on treated fields of the product's use. A copy of this labeling is required to be provided to the conditioner by the producer.

Use of Capture 2EC according to this labeling is deemed a non-food use.

Do not apply Capture 2EC or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

All Seed Alfalfa treated with Capture 2EC is to be tagged at the Conditioning Plant "Not for human or animal consumption".

REFER TO THE EPA REGISTERED LABEL FOR INFORMATION ON CHEMIGATION.

ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.

24(c) Registrant:

FMC Corporation
Agricultural Chemical Group
1735 Market Street
Philadelphia, PA 19103

OR-900008

Code 777 9/91

FMC

Capture and **FMC** - FMC Trademarks
©1991 FMC Corporation

October 16, 1991

Mr. Donald R. Stubbs, Acting Chief
Document Processing Desk (SLN)
Office of Pesticide Programs-Registration Div. (H7505C)
U.S. Environmental Protection Agency
401 M Street (SW)
WASHINGTON DC 20460

REFERENCE: EPA SLN OR-900008

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Product: Capture 2EC Insecticide/Miticide

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Thank you.

Robert A. Mitchell

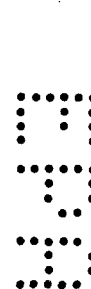
Robert A. Mitchell
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PL/FOR/X6/iy

Enclosure

cc: PLIRS

Oregon State University
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SLN File
Jeff Klundt
Ben Simko



BARBARA ROBERTS
Governor



635 Capitol Street NE
Salem, OR 97310-0110

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EPA SLN NO.
OR-900008



FOR DISTRIBUTION
AND USE ONLY IN
OREGON

Capture® 2EC

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Producers of Alfalfa Seed who use Capture 2EC, or cause the product to be used on fields they operate, are required to inform, in writing, conditioners receiving seed produced on treated fields of the product's use. A copy of this labeling is required to be provided to the conditioner by the producer.

Use of Capture 2EC according to this labeling is deemed a non-food use.

Do not apply Capture 2EC or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

All Seed Alfalfa treated with Capture 2EC is to be tagged at the Conditioning Plant "Not for human or animal consumption".

REFER TO THE EPA REGISTERED LABEL FOR INFORMATION ON CHEMIGATION.

ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.

24(c) Registrant:

FMC Corporation
Agricultural Chemical Group
1735 Market Street
Philadelphia, PA 19103

OR-900008

Code 777 9/91

FMC

Capture and FMC - FMC Trademarks
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585 289 134
38 /

DEC 11 1991

Mr. Robert Mitchell
Agricultural Chemicals Specialist, Plant Division
Oregon Department of Agriculture
635 Capitol Street, NE
Salem, OR 97310-0110

Dear Mr. Mitchell:

Subject: Registration Action under Section 24 (c)
Use of Capture 2EC Insecticide/Miticide on Alfalfa
Grown for Seed
EPA SLN No. OR-900008

This will acknowledge receipt of your notification of April 3, 1990 to this Agency of a registration, pursuant to section 24 (c) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, as follows:

Product:	Capture 2EC Insecticide/Miticide
EPA Registration Number:	279-3069
24 (c) Registrant:	FMC Corporation 2000 Market Street Philadelphia, PA 19103

We have reviewed the above application and have the following comments:

Bifenthrin is a synthetic pyrethroid insecticide registered for use on cotton and several non-crop sites. Aerial and ground applications of bifenthrin are of great concern to the Agency due to the extremely toxic nature of this compound to aquatic organisms. Exposure of bifenthrin residues to aquatic organisms may occur through runoff or drift from target areas to permanent bodies of water and wetland habitats. The Agency believes the proposed use of bifenthrin may exceed Agency criteria for risk to aquatic species, including endangered species and constitutes a possibility for high risk from relatively small amounts of drift or runoff. This is based in part on the fact that the SLN application made no mention of safety measures to prevent actual spray drift or runoff contamination from the use of bifenthrin (i.e., protective buffer zones for aquatic habitats, prohibition of aerial application or restrictions on wind velocity during aerial application).

Jmc 12/11/91

Buffer zones should especially be considered in areas where runoff may potentially enter endangered species habitat. No mention was made of the number of applications of bifenthrin permitted in one crop season. Any second applications of bifenthrin before alfalfa plants bloom will compound the expected residue levels accordingly and could have considerable affect on environmental concentration levels to which non-target organisms are exposed.

In an effort to minimize potential adverse effects to aquatic organisms from use of bifenthrin on alfalfa grown for seed, we strongly recommend you investigate and incorporate (on the label) safety measures (restrictions) to prevent actual spray drift or runoff contamination such as:

- adding a prohibition against aerial application
- avoiding or minimizing spray drift to non-target areas by not spraying when wind speed is 10 miles per hour or greater
- addition of buffer zones for aquatic habitats
- prohibition of use (or incorporation of more stringent buffer zones) for endangered species habitat
- consultation with the Fish and Wildlife Service to insure protection of threatened or endangered species
- reduction in the rate of application and number of applications in one crop season, plus lengthening of intervals between application

If you have any questions in regard to this letter, please feel free to contact me.

Sincerely,

George T. LaRocca
Product Manager (13)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

cc: Jeff Klundt
FMC Corporation
2000 Market Street
Philadelphia, PA 19103



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

001

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

Subject: Section 24C application of Bifenthrin and Fluvalinate to alfalfa grown for seed in North Dakota and Washington

From: Douglas Urban, Acting Chief
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

A handwritten signature in dark ink, appearing to read "Douglas Urban", written over the "From:" line.

To: George Larocca
Registration Division (H7505C)

EEB has completed review of presently approved Section 24C use of bifenthrin in North Dakota and fluvalinate in Washington on alfalfa grown for seed. Both chemicals are highly toxic to aquatic life and these concerns are illuminated in the attached reviews. Bifenthrin (Capture 2EC) is not only very toxic, but also very persistent once it reaches the aquatic habitat. The Branch has strong concerns about any uses of bifenthrin, including a 11,500 acre use such as seed alfalfa in North Dakota.

Fluvalinate (Spur 22EW) is also very toxic to aquatic organisms, although present fate data would indicate that it's persistence characteristics are much less than bifenthrin. Should residues reach aquatic habitats before terrestrial degradation can occur then adverse effects to aquatic life could be expected.

Neither of the 24C applications has listed safety measures to prevent actual spraydrift or runoff contamination from the use of bifenthrin and fluvalinate (ie buffer zones or restrictions on wind velocity during aerial application). The number of applications of bifenthrin permitted in one crop season and intervals between the 3 fluvalinate applications permitted on the Washington application are not specified and could have considerable affect on environmental concentration levels to which non-target organisms are exposed.



261728
Record Number

128825
Shaughnessey No.

EEB REVIEW

Date: In 4/2/90 Out 8/23/91

FILE OR REG. NO. ND-90-0003

PETITION OR EXP. NO. _____

DATE OF SUBMISSION 3/19/90

DATE RECEIVED BY EFED 3/30/90

RD REQUESTED COMPLETION DATE 4/29/90

EEB ESTIMATED COMPLETION DATE 4/29/90

RD ACTION CODE/TYPE OF REVIEW 585

TYPE OF PRODUCT(S): I,D,H,F,N,R,S Insecticide

DATA ACCESSION NUMBER(S): _____

PRODUCT MANAGER NO. PM 15

PRODUCT NAME(S) Bifenthrin

COMPANY NAME FMC Corporation

SUBMISSION PURPOSE Review 24C use on alfalfa grown for seed

SHAUGHNESSEY NO.	CHEMICAL AND FORMULATION	%A.I.
<u>128825</u>	<u>Bifenthrin</u>	<u>25.1%</u>
_____	<u>Capture 2EC, North Dakota</u>	_____
_____	_____	_____

Ecological Effect Branch Review

Chemical: Bifenthrin, Capture 2EC

100.0 Submission Purpose and Label Information:

100.1 Submission Purpose and Pesticide Use:

The North Dakota State Dept. of Health and Consolidated Laboratories has granted Section 24 C status for use of Capture 2 EC insecticide to FMC Corporation to sell the product for use as a prebloom treatment on alfalfa grown for seed. According to the 1987 agricultural statistics this would encompass approximately 11,500 acres. The seed produced would not be available for human or domestic animal consumption. Several insect pests including lygus bug are listed as target pests for this use. No specifics as to the number of acres to be treated, location, or reasons for not using alternatives are provided. The 1987 statistics for alfalfa production in North Dakota totaled 1,362,758 acres in production in over 53 counties statewide.

Bifenthrin is presently registered for only one major crop, cotton. Section 24 C registrations on jojoba and carrots represent additional minor uses. Apparently one 24 C was issued to the State of Nevada (NV89000300) for lygus bug/aphid infestation on alfalfa and Washington state received another in 1989 for the same crop/use pattern.

100.2 Formulation Data:

Active Ingredient: Bifenthrin 25.1%
Inert Ingredients(emulsifiers and solvents).....74.9%

100.3 Application Methods, Directions, and Rates

Application at 0.06 to 0.1 lb ai/acre by aerial or ground spray application equipment.

Directions for use are as follows:

"To control lygus bugs, weevil, aphids, and spider mites apply Capture 2EC at the rate of 3.9 to 6.4 ounces(0.06 to 0.1 lb ai) per acre. Apply in a minimum of 5 gallons of water per acre by air or in a minimum of 20 gallons of water per acre by ground."

100.4 Target Organisms: Lygus bug, weevil, aphids, and spider mites.

100.5 Precautionary Labeling: (excerpted from label)

Environmental Hazards:

This pesticide is extremely toxic to fish and aquatic invertebrates. Drift and runoff from treated areas may be

hazardous to aquatic organisms in neighboring areas. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift while bees are actively visiting the treatment area.

100.6 Scope of the Emergency: From comments listed on the 24C application form dated 2/15/90 :

"Capture is very efficacious on lygus bugs and other important economic pests in alfalfa seed. The old products have become ineffective or have dropped their labels for this crop."

101 Hazard Assessment:

101.1 Discussion:

Environmental Fate: Bifenthrin exhibits extreme persistence in water (half-life >365 days) and also persists in soils (half-life 97-250 days). Photolytic half-life in water was 209-300 days. Bioaccumulation in whole fish was 8720 X after 42 days. In fathead minnow life cycle testing a bioaccumulation factor of 28,000 x was achieved after 1 year of exposure. Low to negligible mobility was displayed in soils. Pyrethroids have been shown to have strong binding properties to soils or sediments and bifenthrin residues may remain in benthic sediments long after detectable residues are gone in the water column. Sediments contaminated with bifenthrin residues may prove toxic to benthic organisms and remain over 1 year, as indicated by half-life values. EEB continues to have strong concerns for this evident persistence in aquatic biosystems and the chemical's high toxicity to organisms which inhabit them.

Estimated Environmental Concentrations:

The label permits aerial or ground spray application at up to 0.10 lbs ai/acre.

Estimated terrestrial residues based on Kenaga and Hoerga residue tables would be as follows for the maximum application rate.

	<u>Shortgrass</u>	<u>LongGrasses</u>	<u>Leaves</u>	<u>Seed pods</u>	<u>Fruit</u>
Typical	12.5	9.2	3.5	0.3	0.15
maximum	24	11	12.5	1.2	0.7

Foliar halflife data have not been submitted as required by the Agency.

A 2 percent runoff of a 0.1 lb ai/acre application from a 10 acre drainage basin would lead to residues of approximately 1.22 ppb. This would be expected to remain concentrated in sediments for long periods of time. Aerial application with a 5% drift would lead to a loading of 0.01 lbs or a concentration of 3.6 ppb at the 6 " depth on a pond's surface. Adverse wind conditions leading to a 20% drift might lead to a concentration of 14.7 ppb in a 6" deep 1 acre freshwater marsh.

Toxicity to Terrestrial Organisms:

Bifenthrin appears to demonstrate low toxicity to mammalian and avian wildlife. LC_{50} values for bobwhite quail and mallard duck are estimated to be 4,450 ppm and 1,280 ppm, respectively. LC_{50} values for laboratory rats based on the LD_{50} value of 355 mg/kg times a factor of 10 would be 3,550 mg/kg. Increased egg breakage was noted at 50 and 75 ppm in bobwhite quail reproduction studies. Estimated residues are not expected to exceed 1/20 of LC_{50} values at the maximum application rate, thus hazard to avian or mammalian species is not expected. Reduction of food resources for waterfowl or mammals which feed on aquatic animals may occur due bifenthrin's high toxicity to aquatic organisms.

Toxicity to Aquatic Organisms:

EEB has strong concerns about the extreme toxicity of bifenthrin to fish and aquatic invertebrates and these concerns are mentioned in Branch reviews of the past few years. Estimated surface concentrations from spray drift alone exceed LC_{50} values of nearly all the species tested by factors of 2 to 9000 times. A concentration of 1.22 ppb as calculated earlier for the 2% runoff to a one acre pond would be equivalent to over 600 times the MATC of Daphnia magna and 20 times the MATC of the Fathead Minnow.

Toxicity to Non-target Insects:

Bifenthrin is shown to demonstrate high toxicity to honey bees from direct application, but low toxicity to bees foraging after application. Beneficial non-target insects in or near strawberry fields are therefore expected be subjected to hazardous affects during actual spraying operations only.

101.4 Endangered Species Concerns:

Presently only one aquatic species, the pallid sturgeon, is listed as endangered in North Dakota. Contamination of

critical habitat for this species would present risk if concentrations are above 1/20 the lowest LC₅₀ for freshwater fish which would be 0.05 ppb. This concentration is exceeded by very low runoff or drift loading scenarios. Burleigh, Dunn, McKenzie, and Sioux counties all contain habitat for the pallid sturgeon and are listed as production areas for alfalfa grown for seed. Any use of bifenthrin in watersheds leading to these critical habitats should be prohibited or strictly regulated.

Reduction of aquatic food sources could have secondary affect on habitat quality for listed waterfowl such as piping plover, whooping crane, least tern, and American bald eagle.

101.5 Adequacy of Toxicity Data:

EEB feels that adequate toxicity data exists for this incremental risk analysis. Aquatic field testing results which have been requested by the Agency should more clearly define bifenthrin's behavior in the environment. The lack of foliar half-life data makes calculation of the bio-availability of residues to terrestrial organisms following multiple applications difficult.

101.6 Adequacy of Labeling:


Labeling is specific as to the hazard to aquatic organisms from any spray drift into aquatic habitats. No mention is made, however, of the potential hazard to aquatic habitats from runoff of soil containing bifenthrin residues and this should be incorporated into the label. No buffer zone is proposed for any aquatic habitat containing endangered aquatic organisms or supporting endangered animals or any other aquatic habitats.

102.0 Conclusions;

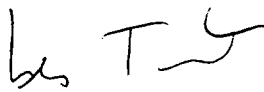
EEB concludes that proposed and presently registered uses of Capture 2EC exceed Agency criteria for risk to aquatic species and constitute a possibility high risk from relatively small amounts of drift or runoff. This contamination would be persistent for hundreds of days. No mention is made in the 24C concerning plans to require protective buffer zones for aquatic habitats. Buffer zones should especially be considered in areas where runoff may potentially enter pallid sturgeon habitat. The high bioconcentration factors associated with bifenthrin increase the likelihood that secondary ingestion of contaminated aquatic organisms by piscivorous wildlife species may occur. Any second applications of bifenthrin before alfalfa plants bloom will compound the expected residue levels accordingly.

Though addition of 11,500 acres to present use patterns may be a small increment in relation to cotton use it is significant and may encompass a wide area of North Dakota where alfalfa is also grown for other uses.

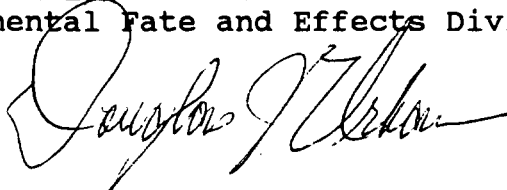
Reviewed by: Brian Montague, Fisheries Biologist
Ecological Effects Branch
Environmental Fate and Effects Division

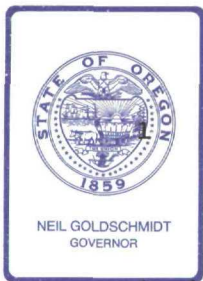
 8/27/91

Approved by: Les Touart, Supervisory Biologist
Ecological Effects Branch
Environmental Fate and Effects Division

 8/27/91

Approved by: Doug Urban, Acting Chief
Ecological Effects Branch
Environmental Fate and Effects Division(H7507C)

 8/28/91



Oregon Department of Agriculture

635 CAPITOL STREET NE, SALEM, OREGON 97310-0110

April 3, 1990

Ms. Ferial S. Bishop, Chief
Document Processing Desk (SLN)
Office of Pesticide Programs-Registration Div. (H7505C)
U.S. Environmental Protection Agency
401 M Street (SW)
WASHINGTON DC 20460

We are pleased to enclose application for registration of the following pesticide under Section 24(c).

FMC Corporation, Capture 2EC, EPA Registration No. 279-3069, EPA SLN No. OR-900008.

This application was passed through Oregon registration April 3, 1990, and allows the use of Capture 2EC for control of lygus, weevils, aphids and spider mites in alfalfa grown for seed production. Dr. Glenn Fisher and Mr. Ben Simko of Oregon State University, have reviewed this application and support registration.

Insecticides available for pest control in alfalfa grown for seed are limited. Capture 2EC is labeled for this use in Washington and Nevada for non-food/feed alfalfa seed. The Oregon Alfalfa Seed Growers Association and Gardena Alfalfa Seed Growers Association have agreed in writing to designate the alfalfa seed crop as a non-food/non-feed commodity with the assurance that no part of this commodity will enter food or feed markets.

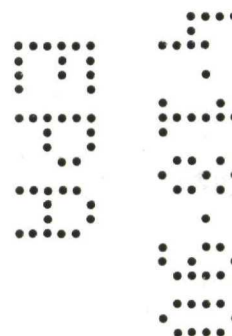
For these reasons, we feel justified in granting this 24(c) registration.

Robert A. Mitchell

Robert A. Mitchell
Agricultural Chemicals Specialist
Plant Division
(503) 378-3776

vbX15/pl
Enclosure

cc: Oregon State University
PLIRS
OSDA Registration File
SLN File
Jon Heller, EPA X
Jeff Klundt
Ben Simko
Glenn Fisher





Oregon Department of Agriculture

635 CAPITOL STREET NE, SALEM, OREGON 97310-0110

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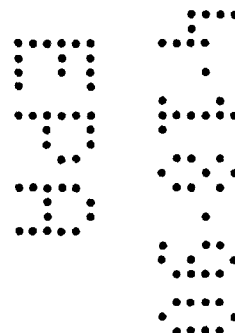
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For these reasons, we feel justified in granting this 24(c) registration.

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Jon Heller, EPA X
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Glenn Fisher









**Application for/Notification of State Registration
of a Pesticide To Meet a Special Local Need**
*(Pursuant to Section 24(C) of the Federal Insecticide,
Fungicide, and Rodenticide Act, as Amended)*

For State Use Only
Registration No. Assigned OR-900008
Date Registration Issued April 3, 1990

1. Name and Address of Applicant for Registration FMC CORPORATION 2000 MARKET STREET PHILADELPHIA, PA 19103		2. Product Is (Check one) EPA-Registered <input checked="" type="checkbox"/> New (not EPA-registered) <input type="checkbox"/> Attach EPA Form 8570-4, Certified Statement of Formula, for new products.		EPA Registration Number 279-3069
4. Product Name Capture 2 EC INSECTICIDE/MITICIDE		3. Active Ingredient(s) in Product Bifenthrin		
6. Type of Registration (Give details in Item 12 or on a separate page, properly identified and attached to this form): <input type="checkbox"/> a. To permit use of a new product. <input checked="" type="checkbox"/> b. To amend EPA registrations for one or more of the following purposes: <input checked="" type="checkbox"/> (1) To permit use on additional crops or animals. <input checked="" type="checkbox"/> (2) To permit use at additional sites. <input type="checkbox"/> (3) To permit use against additional pests. <input type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input type="checkbox"/> (5) To permit use at different application rates. <input type="checkbox"/> (6) Other (specify below)		5. If this is a food/feed use, a tolerance or other residue clearance is required. Cite appropriate regulations in 40 CFR Part 180, 21 CFR Part 193, and/or 21 CFR Part 561. NON-FEED NON-FOOD		
<input checked="" type="checkbox"/> a. To permit use of a new product. <input checked="" type="checkbox"/> b. To amend EPA registrations for one or more of the following purposes: <input checked="" type="checkbox"/> (1) To permit use on additional crops or animals. <input checked="" type="checkbox"/> (2) To permit use at additional sites. <input type="checkbox"/> (3) To permit use against additional pests. <input type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input type="checkbox"/> (5) To permit use at different application rates. <input type="checkbox"/> (6) Other (specify below)		7. Nature of Special Local Need (Check one) a. <input type="checkbox"/> There is no pesticide product registered by EPA for such use. b. <input checked="" type="checkbox"/> There is no EPA-registered pesticide product which, under the conditions of use within the State, would be as safe and/or as efficacious for such use within the terms and conditions of EPA registration. c. <input type="checkbox"/> An appropriate EPA-registered pesticide product is not available.		
10. Has a FIFRA Section 24(C) registration for this use of the product ever, by another State been (Check applicable box(es)) <input checked="" type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Revoked If any of the above are checked, list States in Item 12 below. <input type="checkbox"/> No FIFRA Section 24(C) Action		8. If this registration is an amendment to an EPA-registered product, is it for a "changed use pattern" as defined in 40 CFR 162.3(k)? <input type="checkbox"/> Yes (discuss in Item 12 below) <input checked="" type="checkbox"/> No		
12. Comments ENDANGERED SPECIES ACT: THIS PRODUCT WILL BE USED ONLY IN MALHUR, UMATILLA AND MORROW COUNTIES. THE FEDERAL LABEL DOES NOT IDENTIFY ANY ENDANGERED SPECIES WITHIN THESE COUNTIES OF OREGON. ITEM 10. WA-890010, and NV-890003 ITEM 6. CAPTURE 2 EC IS TO BE USED ONLY ON ALFALFA SEED WHICH IS DECLARED NON-FOOD USE (PLANT PARTS AND SEED)		9. Has an EPA Registration or Experimental Use Permit for Use of this chemical ever been: (Check applicable box(es)) <input checked="" type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input checked="" type="checkbox"/> Denied <input type="checkbox"/> Canceled <input type="checkbox"/> Suspended Previous Permit Action: <input checked="" type="checkbox"/> Registration <input checked="" type="checkbox"/> Experimental Use Permit <input type="checkbox"/> No Previous Permit Action		
11. Endangered Species Act: (Give details in Item 12 or on a separate page, properly identified and attached to this form) Identify the counties where this pesticide will be used. If Statewide, indicate "all." Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use.		12. Comments ENDANGERED SPECIES ACT: THIS PRODUCT WILL BE USED ONLY IN MALHUR, UMATILLA AND MORROW COUNTIES. THE FEDERAL LABEL DOES NOT IDENTIFY ANY ENDANGERED SPECIES WITHIN THESE COUNTIES OF OREGON. ITEM 10. WA-890010, and NV-890003 ITEM 6. CAPTURE 2 EC IS TO BE USED ONLY ON ALFALFA SEED WHICH IS DECLARED NON-FOOD USE (PLANT PARTS AND SEED)		
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.				
Signature of Applicant or Authorized Representative JEFF R. KLUNDT				
Title TECHNICAL SERVICE REP.				
Telephone Number 509-529-5950		Date 3/9/90		

Determination by State Agency

This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA, as amended. To the best of our knowledge, the information above is correct, except as noted in "Comments" below or in attachments.

Name, Title, and Address of State Agency Official		Comments (by State Agency Only)	Received by EPA
Robert A. Mitchell Oregon Department of Agriculture 635 Capitol St. NE Salem OR 97310-0110		For use only by members of the Oregon Alfalfa Seed Growers Assoc. Gardena Alfalfa Seed Growers Assoc. in Malheur, Umatilla or Morrow Counties of Oregon.	 
Title			
Agricultural Chemicals Specialist			 
Telephone Number	Date		
(503) 378-3776	4/3/90		 

Capture® 2 EC

Insecticide/Miticide

EPA Reg. No. 279-3069

FOR USE AND DISTRIBUTION ONLY WITHIN OREGON

EPA SLN NO. OR-900008

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.
For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

CROP: ALFALFA SEED

PESTS: LYGUS BUGS, WEEVIL, APHIDS, AND SPIDER MITES

DIRECTIONS FOR USE:

To control Lygus Bugs, Weevil, Aphids and Spider Mites apply Capture 2 EC at the rate of 3.9 to 6.4 ounces per acre (0.06 to 0.1 pound active ingredient). Apply in a minimum of 5 gallons of water per acre by air or in a minimum of 20 gallons of water per acre by ground.

SPECIAL EQUIPMENT

Capture 2EC should be mixed and loaded using systems that comply with accepted standards that identify a closed mixing-loading system. That system should be designed and operated in such a manner to minimize human exposure to the formulated product or the mixed spray solution of Capture. Follow State directions for closed systems. For more details, contact your State Extension Service.

RESTRICTIONS:

- 1) For use only on fields of Alfalfa grown for seed operated by members of the Oregon Alfalfa Seed Growers Association or Gardena Alfalfa Seed Growers Association, Inc., and located in Malheur, Umatilla, or Morrow Counties of Oregon.
- 2) For use only on fields in the production of Alfalfa Seed. Not for use on fields producing Alfalfa for livestock feed. No portion of the treated field, including seed, seed screenings, hay, forage or stubble, may be used for human or animal feed.
- 3) Producers of Alfalfa Seed who use Capture 2 EC, or cause the product to be used on fields they operate, are required to inform, in writing, conditioners receiving seed produced on treated fields of the product's use. A copy of this labeling is required to be provided to the conditioner by the producer.
- 4) Use of Capture 2 EC according to this labeling is deemed a non-food use.
- 5) Do not apply Capture 2 EC or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.
- 6) All seed Alfalfa treated with Capture 2 EC is to be tagged at the Conditioning Plant "Not for human or animal consumption".

ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.
REFER TO THE EPA REGISTERED LABEL FOR INFORMATION ON CHEMIGATION.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.

FMC CORPORATION

Agricultural Chemical Group

P.O. Box 1689

Fresno, CA 93717

24(c) Registrant:

FMC

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Code 777

Capture® 2 EC

Insecticide/Miticide

EPA Reg. No. 279-3069

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FMC

Code 777

Capture 2 EC

Alfalfa Seed

Lygus Bugs

weevil

aphids

spider mites

Various Insects

4-18-90

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3

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